CLINICAL CAPSULES

Periodontitis Linked to HT

For the first time, periodontal disease has been linked with renal insufficiency and its attendant hypertension in a community-based study of atherosclerosis risk.

Noting that periodontitis has been linked to both cardiovascular and cerebrovascular disease, Abhijit V. Kshirsagar, M.D., and his associates at the University of North Carolina, Chapel Hill, assessed whether it might also be linked to chronic kidney disease, which has similar risk factors, including inflammation. In their study of 5,537 middle-aged adults residing in four U.S. communities, 41% were found to have early periodontitis, 17% had severe periodontitis, and the rest had healthy gums (Am. J. Kidney Dis. 2005;45:650-7).

Those with either early or severe dental disease were twice as likely as were the others to have impaired renal function and its attendant hypertension.

Combining CABG and Endarterectomy

Performing carotid endarterectomy at the same time as coronary artery bypass grafting (CABG) to head off a potential stroke actually seems to raise the risk of stroke, reported Michael D. Hill, M.D., of the University of Calgary (Alta.), and his associates. CABG candidates who have severe carotid stenosis are at increased risk of stroke as a complication of the procedure, compared with those without stenosis. Many centers now offer combined carotid endarterectomy and CABG procedures for such patients, in the hope of preventing this complication from arising. Some do the combined procedures routinely, even for patients with milder carotid stenosis, even though "it is not clearly known whether this is appropriate," the investigators noted (Neurology 2005;64:1435-7).

In their study of 131,762 patients who underwent CABG in Canada during 1992-2001, including 669 who had simultaneous CABG plus carotid endarterectomy, the rate of stroke or death was nearly three times higher in the combined-procedure group (13.0%) than in the CABG-only group (4.9%). Yet utilization of the combined procedure rose steadily over the 9-year study period, increasing by as much as sevenfold in some areas.

In an editorial, Patrick Pullicino, M.D., of New Jersey Medical School, Newark, and Jonathan Halperin, M.D., of Mount Sinai Medical Center, New York, said, "The onus is now on surgeons who perform [carotid endarterectomy plus CABG] to show that it can be performed with acceptable risks" (Neurology 2005;64:1332-3).

Preinfarction Angina May Be Good Sign

Transient angina in the 24 hours before onset of MI appears to be associated with limited infarct size, preservation of myocardial viability, and preservation of left ventricular function, reported Ignacio Iglesias-Garriz, M.D., and his associates at Hospital de León (Spain).

Positive outcomes following so-called preinfarction angina (PA) have been noted in many studies. Dr. Iglesias-Garriz and his associates examined this link in a study of 78 patients with ST-segment elevation acute MI who underwent primary coronary intervention; 32 of them had experienced typical transient chest pain at rest in the day preceding the infarct (Chest 2005;127:1116-21).

Those with PA had smaller infarct size, with a mean percentage of necrotic left ventricle of 18.0%, compared with 27.0% for those who had no PA. Those with PA also had a higher rate of ST-segment resolution (65.6% vs. 45.7%) and a lower incidence of left ventricular systolic dysfunction (3.2% vs. 18.6%).

These favorable findings are probably due to "a better myocardial tissue perfusion if PA is present," the researchers said. It is also possible that angina "triggers an intracellular signal that intrinsically preserves cells from death," they added.

Homocysteine, AV Fistula Thrombosis

High homocysteine levels predict which hemodialysis patients are likely to develop thrombosis of the native arteriovenous fistula that allows vascular access for the procedure, reported Francesca Mallamaci, M.D., of the Institute of Biomedicine, Calabria, Italy, and her associates.

In what they described as the first prospective cohort study to show a direct link between hyperhomocysteinemia and vascular access failure, the researchers followed 205 hemodialysis patients with native AV fistulas in either the upper or the lower arm for a mean of 32 months. The 78 patients who developed one or more vascular access thromboses had significantly higher homocysteine levels (3.91 mg/L) than did patients without thromboses (3.45 mg/L). The relative risk for thrombotic events was nearly twice as high in the one-third of patients with the highest homocysteine levels than in the one-third who had the lowest levels (Am. J. Kidney Dis. 2005;45:702-7). Further study should examine whether reducing homocysteine levels will prevent vascular access failure in hemodialysis patients, they added.

—Mary Ann Moon

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